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09/486875 - 4

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REC'D 20 OCT 1998

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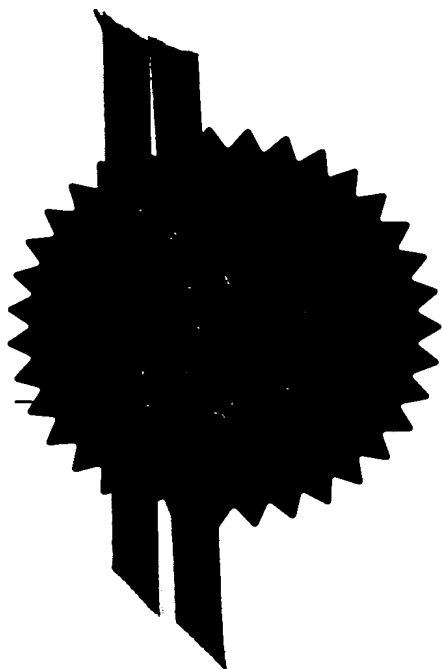
PCT

I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

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Dated

- 8 OCT 1998

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P54287 / PRW

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Notes

Please type, or write in dark ink using CAPITAL letters. A prescribed fee is payable for a request for grant of a patent. For details, please contact the Patent Office (telephone 071-438 4700).

Rule 6 of the Patents Rules 1990 is the main rule governing the completion and filing of this form.

2 Do not give trading styles, for example, 'Trading as XYZ company', nationality or former names, for example, 'formerly (known as) ABC Ltd' as these are not required.

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The
Patent
Office

Request for grant of a Patent Form 1/77

Patents Act 1977

1 Title of invention

GASKET FOR CLADDING SYSTEM

1 Please give the title of the invention

2 Applicant's details

☐ First or only applicant

2a If you are applying as a corporate body please give:

Corporate name

S D INVESTMENTS LIMITED

Country (and State of incorporation, if appropriate)

UK

2b If you are applying as an individual or one of a partnership please give in full:

Surname

Forenames

2c In all cases, please give the following details:

Address

8A ST JAMES PLACE
BAILDON
SHIPLEY

UK postcode BD17 7LD
(if applicable)

Country UK

ADP number
(if known)

7291263001

2d, 2e and 2f:

*If there are further applicants
please provide details on a separate
sheet of paper.*

☐ **Second applicant (if any)**

2d If you are applying as a corporate body please give:

Corporate name

Country (and State of incorporation, if appropriate)

2e If you are applying as an individual or one of a partnership please give in full:

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2f In all cases, please give the following details:

Address

UK postcode
(if applicable)

Country

ADP number
(if known)

3

*An address for service in the United
Kingdom must be supplied.*

Please mark correct box

3 Address for service details

3a Have you appointed an agent to deal with your application?

Yes ☒ No ☐ ➡ *go to 3b*

↓
Please give details below

Agent's name

URQUHART - DYKES & LORD

Agent's address

INVENTIONS HOUSE

VALLEY COURT

CANAL ROAD

BRADFORD

Postcode BD1 4SP

Agent's ADP number 1644023

3b If you have not appointed an agent please give a name and address in the United Kingdom to which all correspondence will be sent:

Name

Address

Postcode
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(if known)

Daytime telephone
number (if available)

3b:

*If you have appointed an agent,
all correspondence concerning
your application will be sent to
the agent's United Kingdom
address.*

4 Reference number

4 Agent's or applicant's
reference number
(if applicable)

P54287/PRW

5 Claiming an earlier application date

5 Are you claiming that this application be treated as having been filed on the date of filing of an earlier application?

Please mark correct box

Yes ☐ No ☒ **go to 6**

↓
please give details below

☐ number of earlier
application or patent
number

☐ filing date
(day month year)

☐ and the Section of the Patents Act 1977 under which you are claiming:

Please mark correct box

15(4) (Divisional) ☐ 8(3) ☐ 12(6) ☐ 37(4) ☐

6 Declaration of priority

6 If you are declaring priority from previous application(s), please give:

Country of filing	Priority application number (if known)	Filing date (day, month, year)
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6

If you are declaring priority from a PCT Application please enter 'PCT' as the country and enter the country code (for example, GB) as part of the application number.

Please give the date in all number format, for example, 31/05/90 for 31 May 1990.

7

The answer must be 'No' if:

- any applicant is not an inventor
- there is an inventor who is not an applicant, or
- any applicant is a corporate body.

8

Please supply duplicates of claim(s), abstract, description and drawing(s).

Please mark correct box(es)

9

You or your appointed agent (see Rule 90 of the Patents Rules 1990) must sign this request.

Please sign here →

A completed fee sheet should preferably accompany the fee.

7 Inventorship

7 Are you (the applicant or applicants) the sole inventor or the joint inventors?

Please mark the correct box

Yes ☐ No ☒ →

A statement of Inventorship on Patents Form 7/77 will need to be filed (see Rule 15).

8 Checklist

8a Please fill in the number of sheets for each of the following types of document contained in this application.

Continuation sheets for this Patents Form 1/77

Claim(s)

Abstract

Description

Drawing(s)

4

3 + 3

8b Which of the following documents also accompanies the application?

Priority documents (please state how many)

Translation(s) of Priority documents (please state how many)

Patents Form 7/77 - Statement of Inventorship and Right to Grant (please state how many)

Patents Form 9/77 - Preliminary Examination/Search

Patents Form 10/77 - Request for Substantive Examination

9 Request

I/We request the grant of a patent on the basis of this application.

Signed

Date 23/09/1997

(day month year)

Please return the completed form, attachments and duplicates where requested, together with the prescribed fee to:

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The Patent Office
Cardiff Road
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GASKET FOR CLADDING SYSTEM

This invention relates to an improved method of producing a gasket for a building cladding system, and to the gasket so made.

In our published UK patent specification number 2 023 703 and our European patent publication number 0 059 058 building systems are described in which infill members are held in place on a framework by means of a flexible gasket which locates and is gripped by the framework and has a limb extending so as to bear against the infill and hold it in place. This system is very successful and is used extensively. A particular feature of it, which appeals to architects, is that the gasket can be of various colours, or indeed multi-coloured, to produce a desired aesthetic effect.

One problem area in connection with the gaskets of the above systems is in connection with the gasket corners. Reference to figures 1 and 2 of the accompanying drawings illustrates the current method of producing corners. The main runs of the gasket are extruded to the desired length. Two extrusions 10 are inserted into a mould 12 and a shot of silicone compound is inserted under pressure into the heated mould forming a joint 14 between the two extrusions. Because the moulding is carried out under pressure, it is easy for protruding lines 16 to appear on the resultant product, which are not aesthetically pleasing. Similarly, because the corner is injected rather than extruded, there is very often a colour differential and a different surface finish between the corner 14 and the extrusions 10. In addition, the corner needs to be radiused at 18 to ensure weather-tightness when a clean right angle may be preferred aesthetically. Finally, it is only possible to use a single solid colour whereas the extrusions can be produced in multiple colours or with metallic pigments.

The invention seeks to provide a method of forming a gasket corner improved in the above respects.

According to the present invention there is provided a method of forming a corner joint between two plastics extrusions which comprises mitring the extrusions so that they form the desired angle to one another, removing part of the rear face of each extrusion, placing the mitred extrusions in a mould and injecting a resin material whereby to bond the extrusions to one another and produce the desired corner configuration.

Because the front surface of the joint in accordance with the invention is entirely made up from the original extrusion, there are no problems with raised sight-lines, colour differentials, surface differences, or colour matching. Moreover, the method of the invention allows a corner to be produced which has a clean right angled rather than radiused inner portion.

The extrusions will be made from a suitable plastics material as described in the above mentioned patent publications. Currently it is preferred that the extrusions are made from a silicone rubber. Accordingly the resin used to form the joint is also from a silicone rubber mix which will cure under heat and pressure in order to produce the joint.

The invention further includes a gaskets having corner joints formed in accordance with the above.

The invention will be described further, by way of example, with reference to the accompanying drawings, in which:

Figures 1 and 2 are diagrammatic illustrations of the current method;

Figure 3 is a front elevational view of a seal in accordance with the method of the invention;

Figure 4 is a perspective view corresponding to figure 3;

Figure 5 is a partial sectional view;

Figure 6 is a rear elevation corresponding to figure 3; and

Figure 7 is a rear perspective view.

Referring to the drawings, and firstly Figures 1 and 2, as has been indicated above in the existing method two extrusions 10 are brought together in a mould 12 and injected with a silicone material under heat and pressure to produce a joint 14. The inner corner of the joint 14 is radiused at 18.

Referring now to Figures 3 to 7, in the method of the invention, by contrast, and using like numbers for like parts, the extrusions 10 are mitred at an appropriate angle, for example 45° to produce a 90° corner (although other angles may be used for different shape infill panels). The mitred ends 20 are brought together in a butt joint 22. The extrusions 10 have front faces 24 and rear faces 26. The latter are moulded with indented "foot" portions 28 designed to locate in channels in the building framework (not shown).

In the area of the joint the back of each extrusion 10 is cut away along a line 30 at the back of the extrusions. Thus, the front faces 24 are left untouched.

The butt joined cut-away extrusions are then put into a mould of the requisite shape and injected with a silicone resin 32 as before. The mould is shaped to continue the foot portions 28 and to provide a pillar 38 if required by the system. From the front, therefore, the extrusions are unbroken and any multi-colour lines, metallic lines, or the like continue unbroken to the butt joint 22. There are no unsightly raised lines and the problems with the previous method of joining are overcome.

In addition, a sealing lip 40 may be provided on the extrusions 10 which can be continued in the area of the join 32. This ensures that the corner is weather-tight and obviates the need to radius the inner corner of the join, allowing a "clean" 90° angle to be achieved.

Fig 1.

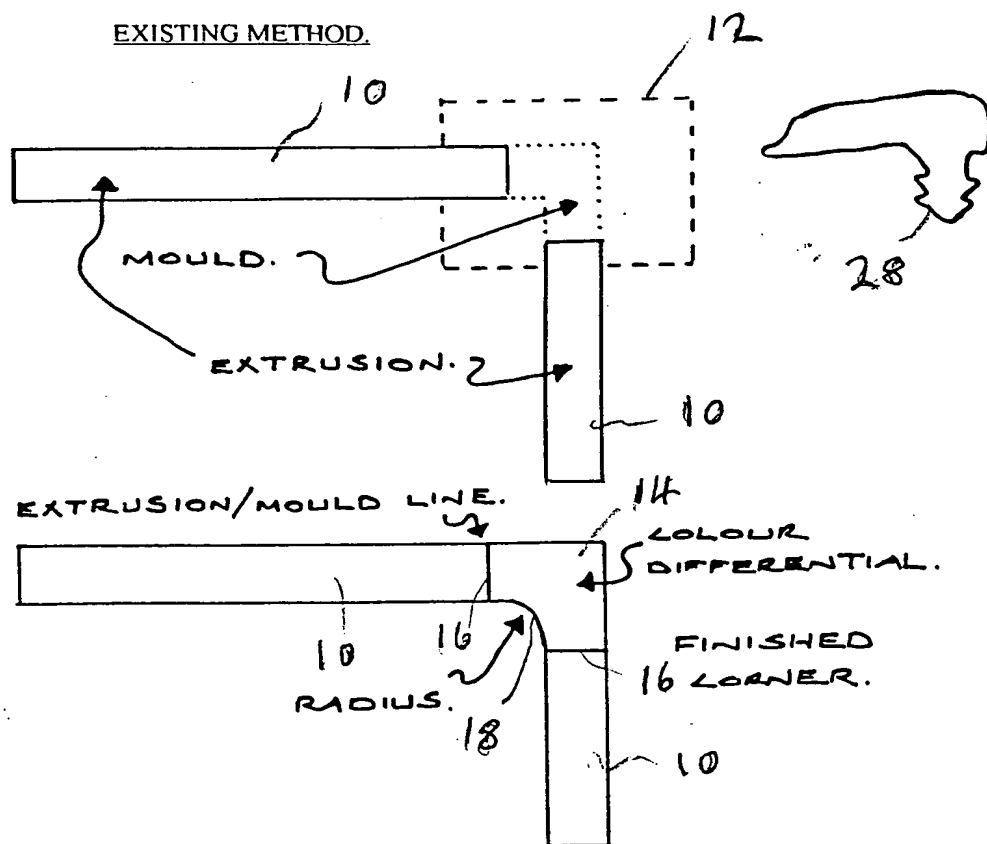


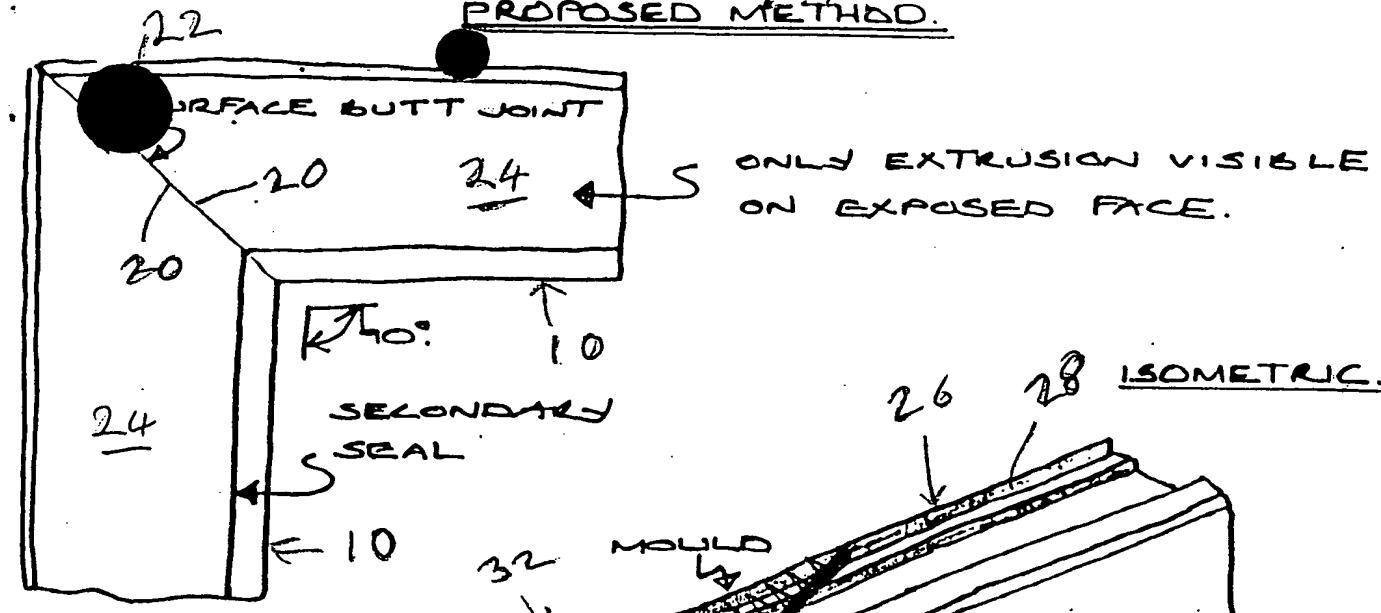
Fig 2.

Coloured extrusion is inserted into mould tool and clamped, a shot of Silicone compound is inserted under pressure into heated tool forming a joint between the two ends of extrusion predominantly right angles, but any angle can be achieved.

The disadvantages with this method are :-

1.
Because the mould is inserted under pressure, it is easy to obtain protruding sight lines which are not aesthetically pleasing.
2.
Because the corner is injected not extruded, there is very often a colour differential and different surface finish.
3.
The corner needs to be a radius to ensure weather tightness.
4.
Impossible to use multi-colours or metallic pigments.

PROPOSED METHOD.



ELEVATION.

FIG 3

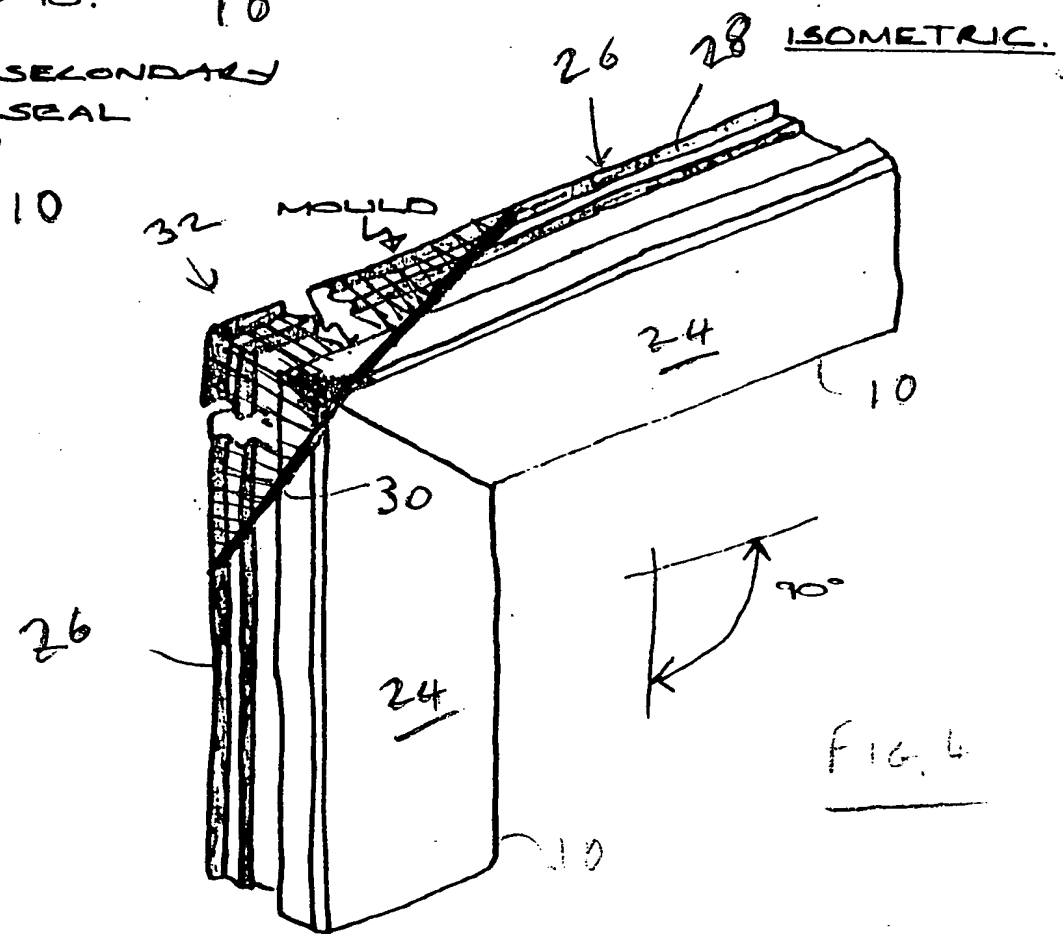


FIG. 4

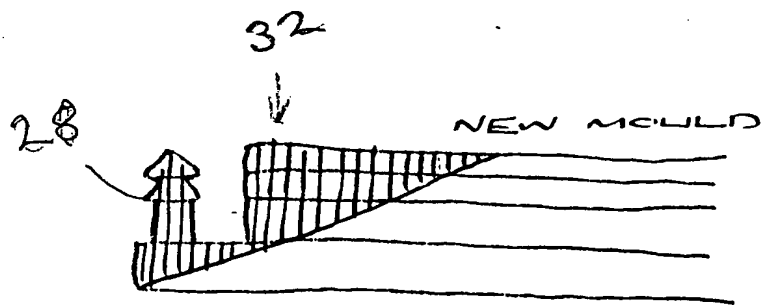
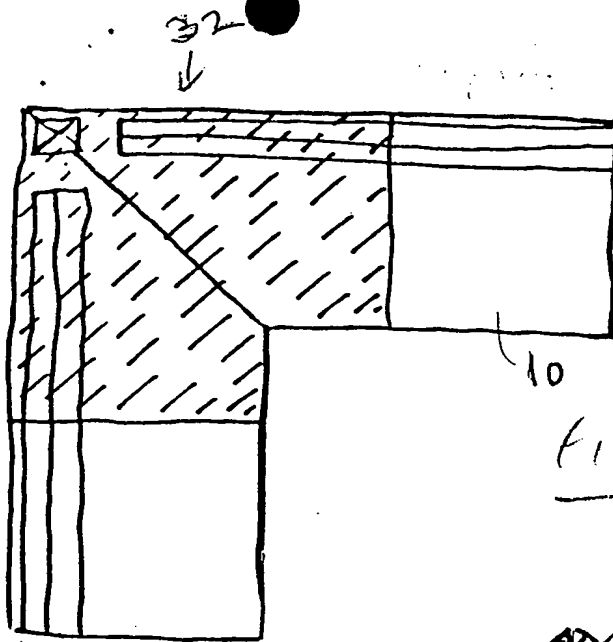


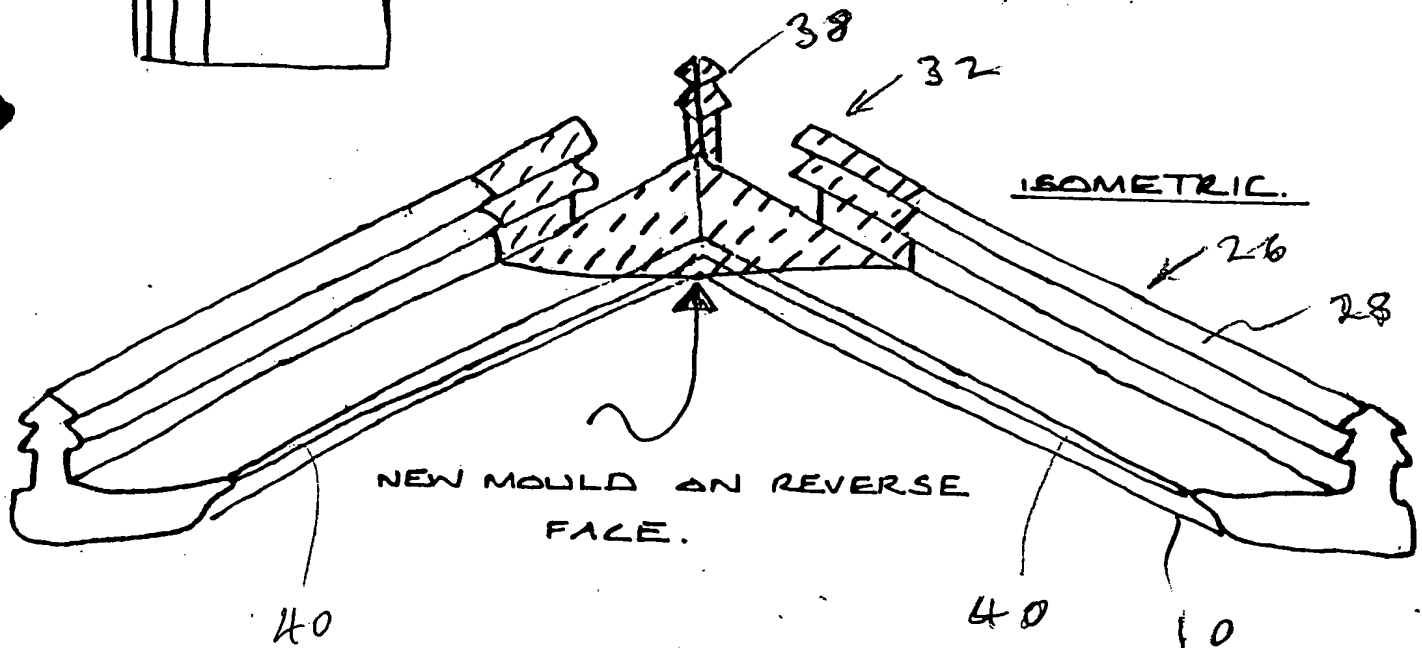
FIG 5

PROPOSED METHOD.



ELEVATION.

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ISOMETRIC.

NEW MOULD ON REVERSE
FACE.

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Urgent Dykes + Bond

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